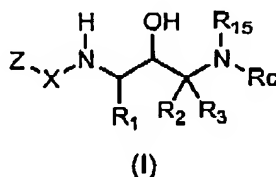


### The Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A compound of the formula I:



or pharmaceutically acceptable salts thereof, wherein

Z is hydrogen, (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>1</sub>-C<sub>8</sub> alkyl)-, (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkenyl)-, alkoxyalkoxyalkyl, (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkynyl)- or (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)-, wherein each of said groups is optionally substituted with 1, 2, or 3 R<sub>Z</sub> groups, wherein 1 or 2 methylene groups within said (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>1</sub>-C<sub>8</sub> alkyl)-, (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkenyl)-, (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkynyl)- or (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)- groups are optionally replaced with -(C=O)-; wherein R<sub>Z</sub> at each occurrence is independently halogen, -OH, -SH, -CN, -CF<sub>3</sub>, -OCF<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, C<sub>3</sub>-C<sub>7</sub> cycloalkoxy or -NR<sub>100</sub>R<sub>101</sub>;

where R<sub>100</sub> and R<sub>101</sub> are independently H, C<sub>1</sub>-C<sub>6</sub> alkyl, phenyl, CO(C<sub>1</sub>-C<sub>8</sub> alkyl) or SO<sub>2</sub>C<sub>1</sub>-C<sub>8</sub> alkyl;

X is -(C=O)-, ~~-(C=S)-~~, -(SO<sub>2</sub>)-;

R<sub>1</sub> is C<sub>1</sub>-C<sub>10</sub> alkyl optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, =O, -SH, -CN, -CF<sub>3</sub>, -OCF<sub>3</sub>, -C<sub>3-7</sub> cycloalkyl, -C<sub>1</sub>-C<sub>4</sub> alkoxy, amino, mono-dialkylamino, aryl, heteroaryl, and heterocycloalkyl, wherein each aryl group is optionally substituted with 1, 2 or 3 R<sub>50</sub> groups;

R<sub>50</sub> is selected from halogen, OH, SH, CN, -CO-(C<sub>1</sub>-C<sub>4</sub> alkyl), -NR<sub>7</sub>R<sub>8</sub>, -S(O)<sub>0-2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl), C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, C<sub>1</sub>-C<sub>8</sub> alkoxy, -O-benzyl, alkenyloxy, alkoxyalkoxyalkoxy, and C<sub>3</sub>-C<sub>8</sub> cycloalkyl;

wherein the alkyl, alkenyl, alkynyl, alkoxy and cycloalkyl groups are optionally substituted with 1 or 2 substituents independently selected from C<sub>1</sub>-C<sub>4</sub> alkyl, halogen, OH, -NR<sub>5</sub>R<sub>6</sub>, CN, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, NR<sub>7</sub>R<sub>8</sub>, and C<sub>1</sub>-C<sub>4</sub> alkoxy;

R<sub>5</sub> and R<sub>6</sub> are independently H or C<sub>1</sub>-C<sub>6</sub> alkyl; or

R<sub>5</sub> and R<sub>6</sub> and the nitrogen to which they are attached form a 5 or 6 membered heterocycloalkyl ring; and

R<sub>7</sub> and R<sub>8</sub> are independently selected from H; -C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted with 1, 2, or 3 groups independently selected from -OH, -NH<sub>2</sub>, and halogen; -C<sub>3</sub>-C<sub>8</sub> cycloalkyl; -(C<sub>1</sub>-C<sub>4</sub> alkyl)-O-(C<sub>1</sub>-C<sub>4</sub> alkyl); -C<sub>2</sub>-C<sub>4</sub> alkenyl; and -C<sub>2</sub>-C<sub>4</sub> alkynyl;

wherein each heteroaryl is optionally substituted with 1 or 2 R<sub>50</sub> groups;

wherein each heterocycloalkyl group is optionally substituted with 1 or 2 groups that are independently R<sub>50</sub> or =O;

R<sub>2</sub> and R<sub>3</sub> are independently selected from

-H;

-F;

-C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with a substituent selected from -F, -OH, -C≡N, -CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub> alkoxy, and -NR<sub>5</sub>R<sub>6</sub>;

-(CH<sub>2</sub>)<sub>0-2</sub>-R<sub>17</sub>;

-(CH<sub>2</sub>)<sub>0-2</sub>-R<sub>18</sub>;

-C<sub>2</sub>-C<sub>6</sub> alkenyl or C<sub>2</sub>-C<sub>6</sub> alkynyl, wherein each is optionally substituted with an independent substituent selected from -F, -OH, -C≡N, -CF<sub>3</sub> and C<sub>1</sub>-C<sub>3</sub> alkoxy;

-(CH<sub>2</sub>)<sub>0-2</sub>-C<sub>3</sub>-C<sub>7</sub> cycloalkyl, optionally substituted an independent substituent selected from -F, -OH, -C≡N, -CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub> alkoxy and -NR<sub>5</sub>R<sub>6</sub>; or

wherein R<sub>2</sub>, R<sub>3</sub> and the carbon to which they are attached form a carbocycle of three thru seven carbon atoms, wherein one carbon atom is optionally replaced by a group selected from -O-, -S-, -SO<sub>2</sub>-, or -NR<sub>7</sub>;

where R<sub>17</sub> at each occurrence is an aryl group selected from phenyl, 1-naphthyl, 2-naphthyl, indanyl, indenyl, dihydronaphthyl and tetralinyl, wherein said aryl groups are optionally substituted with one or two groups that are independently

-C<sub>1</sub>-C<sub>3</sub> alkyl; -C<sub>1</sub>-C<sub>4</sub> alkoxy; CF<sub>3</sub>; or

-C<sub>2</sub>-C<sub>6</sub> alkenyl or -C<sub>2</sub>-C<sub>6</sub> alkynyl each of which is optionally substituted with one substituent selected from F, OH, C<sub>1</sub>-C<sub>3</sub> alkoxy; or

-halogen;

-OH;

-C≡N;

-C<sub>3</sub>-C<sub>7</sub> cycloalkyl;

-CO-(C<sub>1</sub>-C<sub>4</sub> alkyl);

-SO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl);

where R<sub>16</sub> is a heteroaryl group selected from pyridinyl, pyrimidinyl, quinolinyl, indolyl, pyridazinyl, pyrazinyl, isoquinolyl, quinazolinyl, quinoxalinyl, phthalazinyl, imidazolyl, isoxazolyl, oxazolyl, thiazolyl, furanyl, thienyl, pyrrolyl, oxadiazolyl or thiadiazolyl, wherein each of said heteroaryl groups is optionally substituted with one or two groups that are independently

-C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with one substituent selected from OH, C≡N, CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub> alkoxy, and -NR<sub>5</sub>R<sub>6</sub>;

wherein R<sub>15</sub> is selected from hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> alkoxy C<sub>1</sub>-C<sub>6</sub> alkyl, hydroxy C<sub>1</sub>-C<sub>6</sub> alkyl, halo C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl, -C(O)<sub>2</sub>-benyl, and alkoxycarbonyl, wherein the alkyl and phenyl portion of each is unsubstituted or substituted with 1, 2, 3, or 4 groups independently selected from halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkoxy, NH<sub>2</sub>, and -R<sub>26</sub>-R<sub>27</sub>;

wherein R<sub>26</sub> is selected from a bond, -C(O)-, -SO<sub>2</sub>-, -CO<sub>2</sub>-, -C(O)NR<sub>5</sub>-, and -NR<sub>5</sub>C(O)-,

wherein R<sub>27</sub> is selected from C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, aryl C<sub>1</sub>-C<sub>6</sub> alkyl, heterocycloalkyl, and heteroaryl, wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, halogen, haloalkyl, hydroxyalkyl, -NR<sub>5</sub>R<sub>6</sub>, -C(O)NR<sub>5</sub>R<sub>6</sub>;

wherein R<sub>C</sub> is selected from

heteroaryl;

heterocycloalkyl;

-heteroaryl-aryl;

-heteroaryl-heterocycloalkyl;

-heteroaryl-heteroaryl;

-heterocycloalkyl-heteroaryl;

-heterocycloalkyl-heterocycloalkyl;

-heterocycloalkyl-aryl;

wherein each aryl group is optionally substituted with 1, 2, 3 or 4 R<sub>200</sub> groups;

wherein each heteroaryl group is optionally substituted with 1, 2, 3, or 4 R<sub>200</sub>;

wherein each heterocycloalkyl group is optionally substituted with 1, 2, 3, or 4 R<sub>210</sub>;

wherein R<sub>200</sub> at each occurrence is independently selected from

-C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups;

-OH;  
 -NO<sub>2</sub>;  
 -halogen;  
 -C≡N;  
 -CHO;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-CO-NR<sub>220</sub>R<sub>225</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-CO-(C<sub>1</sub>-C<sub>8</sub> alkyl);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-CO-(C<sub>2</sub>-C<sub>8</sub> alkenyl);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-CO-(C<sub>2</sub>-C<sub>8</sub> alkynyl);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-CO-(C<sub>3</sub>-C<sub>7</sub> cycloalkyl);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-(CO)<sub>0-1</sub>-aryl;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-(CO)<sub>0-1</sub>-heteroaryl;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-(CO)<sub>0-1</sub>-heterocycloalkyl;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-CO<sub>2</sub>R<sub>215</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-SO<sub>2</sub>-NR<sub>220</sub>R<sub>225</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-S(O)<sub>0-2</sub>-(C<sub>1</sub>-C<sub>8</sub> alkyl);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-S(O)<sub>0-2</sub>-(C<sub>3</sub>-C<sub>7</sub> cycloalkyl);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-N(H or R<sub>215</sub>)-CO<sub>2</sub>R<sub>215</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-N(H or R<sub>215</sub>)-SO<sub>2</sub>-R<sub>220</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-N(H or R<sub>215</sub>)-CO-N(R<sub>215</sub>)<sub>2</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-N(H or R<sub>215</sub>)-CO-R<sub>220</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-NR<sub>220</sub>R<sub>225</sub>;  
 -(CH<sub>2</sub>)<sub>0-4</sub>-O-CO-(C<sub>1</sub>-C<sub>6</sub> alkyl);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-O-(R<sub>215</sub>);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-S-(R<sub>215</sub>);  
 -(CH<sub>2</sub>)<sub>0-4</sub>-O-(C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 1, 2, 3, or 5 -F);  
 -C<sub>2</sub>-C<sub>6</sub> alkenyl optionally substituted with 1 or 2 R<sub>205</sub> groups;  
 -C<sub>2</sub>-C<sub>6</sub> alkynyl optionally substituted with 1 or 2 R<sub>205</sub> groups;  
 and

-(CH<sub>2</sub>)<sub>0-4</sub>-C<sub>3</sub>-C<sub>7</sub> cycloalkyl;

wherein each aryl group included within R<sub>200</sub> is optionally substituted with 1, 2, or 3 groups that are independently

-R<sub>205</sub>,

-R<sub>210</sub> or

-C<sub>1</sub>-C<sub>6</sub> alkyl substituted with 1, 2, or 3 groups that are independently R<sub>205</sub> or R<sub>210</sub>;  
wherein each heterocycloalkyl group included within R<sub>200</sub> is optionally substituted with 1, 2, or 3 groups that are independently R<sub>210</sub>;

wherein each heteroaryl group included within R<sub>200</sub> is optionally substituted with 1, 2, or 3 groups that are independently

-R<sub>205</sub>,

-R<sub>210</sub>, or

-C<sub>1</sub>-C<sub>6</sub> alkyl substituted with 1, 2, or 3 groups that are independently

-R<sub>205</sub> or

-R<sub>210</sub>;

wherein R<sub>205</sub> at each occurrence is independently selected from

-C<sub>1</sub>-C<sub>6</sub> alkyl,

-C<sub>2</sub>-C<sub>6</sub> alkenyl,

-C<sub>2</sub>-C<sub>6</sub> alkynyl,

-C<sub>1</sub>-C<sub>6</sub> haloalkoxy

-(CH<sub>2</sub>)<sub>0-3</sub>(C<sub>3</sub>-C<sub>7</sub> cycloalkyl)

-halogen,

-(CH<sub>2</sub>)<sub>0-6</sub>-OH,

-O-phenyl,

-alkenyl-phenyl,

-SH,

-(CH<sub>2</sub>)<sub>0-6</sub>-C≡N,

-(CH<sub>2</sub>)<sub>0-6</sub>-C(=O)NR<sub>235</sub>R<sub>240</sub>

-CF<sub>3</sub>,

-C(O)<sub>2</sub>-benzyl,

-C<sub>1</sub>-C<sub>6</sub> alkoxy, and

-NR<sub>235</sub>R<sub>240</sub>,

wherein R<sub>210</sub> at each occurrence is independently selected from

-C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups;

-C<sub>2</sub>-C<sub>6</sub> alkenyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups;

-C<sub>2</sub>-C<sub>6</sub> alkynyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups;

-halogen;

-C<sub>1</sub>-C<sub>6</sub> alkoxy;  
 -C<sub>1</sub>-C<sub>6</sub> haloalkoxy;  
 -NR<sub>220</sub>R<sub>225</sub>;  
 -OH;  
 -C≡N;  
 -C<sub>3</sub>-C<sub>7</sub> cycloalkyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups;  
 -CO-(C<sub>1</sub>-C<sub>4</sub> alkyl);  
 .SO<sub>2</sub>-NR<sub>235</sub>R<sub>240</sub>;  
 -CO-NR<sub>235</sub>R<sub>240</sub>;  
 -SO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl); and  
 =O; wherein

wherein R<sub>215</sub> at each occurrence is independently selected from

-C<sub>1</sub>-C<sub>6</sub> alkyl,  
 -(CH<sub>2</sub>)<sub>0-2</sub>-(aryl),  
 -C<sub>2</sub>-C<sub>6</sub> alkenyl,  
 -C<sub>2</sub>-C<sub>6</sub> alkynyl,  
 -C<sub>3</sub>-C<sub>7</sub> cycloalkyl,  
 -(CH<sub>2</sub>)<sub>0-2</sub>-(heteroaryl), and  
 -(CH<sub>2</sub>)<sub>0-2</sub>-(heterocycloalkyl);

wherein the aryl group included within R<sub>215</sub> is optionally substituted with 1, 2, or 3 groups that are independently

-R<sub>205</sub> or

-R<sub>210</sub>;

wherein the heterocycloalkyl group included within R<sub>215</sub> is optionally substituted with 1, 2, or 3 R<sub>210</sub>;

wherein each heteroaryl group included within R<sub>215</sub> is optionally substituted with 1, 2, or 3 R<sub>210</sub>;

wherein R<sub>220</sub> and R<sub>225</sub> at each occurrence are independently selected from

-H,  
 -C<sub>1</sub>-C<sub>6</sub> alkyl,  
 -hydroxy C<sub>1</sub>-C<sub>6</sub> alkyl,  
 -amino C<sub>1</sub>-C<sub>6</sub> alkyl,  
 -halo C<sub>1</sub>-C<sub>6</sub> alkyl,

$-(CH_2)_{0-2}-(C_3-C_7 \text{ cycloalkyl})$ ,  
 $-(C_1-C_6 \text{ alkyl})-O-(C_1-C_3 \text{ alkyl})$ ,  
 $-C_2-C_6 \text{ alkenyl}$ ,  
 $-C_2-C_6 \text{ alkynyl}$ ,  
 $-aryl$ ,  
 $-heteroaryl$ , and  
 $-heterocycloalkyl$ ;

wherein the aryl, heteroaryl or heterocycloalkyl group included within  $R_{220}$  and  $R_{225}$  is optionally substituted with 1, 2, or 3  $R_{270}$  groups,  
 wherein  $R_{270}$  at each occurrence is independently

$-R_{205}$ ,  
 $-C_1-C_6 \text{ alkyl}$  optionally substituted with 1, 2, or 3  $R_{205}$  groups;  
 $-C_2-C_6 \text{ alkenyl}$  optionally substituted with 1, 2, or 3  $R_{205}$  groups;  
 $-C_2-C_6 \text{ alkynyl}$  optionally substituted with 1, 2, or 3  $R_{205}$  groups;  
 $-halogen$ ;  
 $-C_1-C_6 \text{ alkoxy}$ ;  
 $-C_1-C_6 \text{ haloalkoxy}$ ;  
 $-NR_{235}R_{240}$ ;  
 $-OH$ ;  
 $-C\equiv N$ ;  
 $-C_3-C_7 \text{ cycloalkyl}$  optionally substituted with 1, 2, or 3  $R_{205}$  groups;  
 $-CO-(C_1-C_4 \text{ alkyl})$ ;  
 $-SO_2-NR_{235}R_{240}$ ;  
 $-CO-NR_{235}R_{240}$ ;  
 $-SO_2-(C_1-C_4 \text{ alkyl})$ ; and  
 $=O$ ;

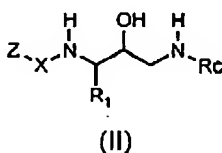
wherein  $R_{235}$  and  $R_{240}$  at each occurrence are independently

$-H$ , or  
 $-C_1-C_6 \text{ alkyl}$ ; or  
 $-phenyl$ .

2. (Original) A compound according to claim 1, wherein Z is (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>1</sub>-C<sub>6</sub> alkyl)-, (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkenyl)-, (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkynyl)- or (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)-, wherein each of said groups is optionally substituted with 1, 2, or 3 R<sub>z</sub> groups; wherein, R<sub>z</sub> at each occurrence is independently halogen, -OH, -CN, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, C<sub>3</sub>-C<sub>7</sub> cycloalkoxy, -NR<sub>100</sub>R<sub>101</sub>; where R<sub>100</sub> and R<sub>101</sub> are independently H, C<sub>1</sub>-C<sub>6</sub> alkyl, phenyl, CO(C<sub>1</sub>-C<sub>6</sub> alkyl) or SO<sub>2</sub>C<sub>1</sub>-C<sub>6</sub> alkyl.
3. (Original) A compound according to claim 1, wherein X is -(C=O)-.
4. (Original) A compound according to claim 3, wherein Z is H.
5. (Original) A compound according to claim 1, wherein R<sub>1</sub> is C<sub>1</sub>-C<sub>10</sub> alkyl optionally substituted with 1 or 2 groups independently selected from halogen, -OH, =O, -CF<sub>3</sub>, -OCF<sub>3</sub>, -C<sub>3-7</sub> cycloalkyl, -C<sub>1</sub>-C<sub>4</sub> alkoxy, amino or aryl, wherein the aryl group is optionally substituted with 1 or 2 R<sub>50</sub> groups; wherein R<sub>50</sub> is selected from halogen, OH, -CO-(C<sub>1</sub>-C<sub>4</sub> alkyl), -NR<sub>7</sub>R<sub>8</sub>, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy and C<sub>3</sub>-C<sub>8</sub> cycloalkyl; wherein the alkyl, alkoxy and cycloalkyl groups are optionally substituted with 1 or 2 substituents independently selected from C<sub>1</sub>-C<sub>4</sub> alkyl, halogen, OH, -NR<sub>5</sub>R<sub>6</sub>, NR<sub>7</sub>R<sub>8</sub>, and C<sub>1</sub>-C<sub>4</sub> alkoxy; wherein R<sub>5</sub> and R<sub>6</sub> are independently H or C<sub>1</sub>-C<sub>6</sub> alkyl; or wherein R<sub>5</sub> and R<sub>6</sub> and the nitrogen to which they are attached form a 5 or 6 membered heterocycloalkyl ring; and wherein R<sub>7</sub> and R<sub>8</sub> are independently selected from -H; -C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted with 1, 2, or 3 groups independently selected from -OH, -NH<sub>2</sub>, and halogen; -C<sub>3</sub>-C<sub>6</sub> cycloalkyl; -(C<sub>1</sub>-C<sub>4</sub> alkyl)-O-(C<sub>1</sub>-C<sub>4</sub> alkyl).
6. (Original) A compound according to claim 5, wherein R<sub>1</sub> is -CH<sub>2</sub>-phenyl where the phenyl ring is optionally substituted with 1 or 2 groups independently selected from halogen, C<sub>1</sub>-C<sub>2</sub> alkyl, C<sub>1</sub>-C<sub>2</sub> alkoxy and hydroxy.



7. (Original) A compound according to claim 6, wherein  $R_1$  is benzyl, 3-fluorobenzyl or 3,5-difluorobenzyl.
8. (Original) A compound according to claim 1, wherein  $R_{15}$  is H.
9. (Original) A compound according to claim 7, wherein  $R_{15}$  is H.
10. (Currently Amended) A compound according to claim 1 of the formula II:



wherein Z is hydrogen,  $-C_1-C_6$  alkyl,  $-C_2-C_6$  alkenyl,  $-C_2-C_6$  alkynyl or  $-C_3-C_7$  cycloalkyl, where each of said groups is optionally substituted with 1 or 2  $R_Z$  groups, wherein 1 or 2 methylene groups within said  $-C_1-C_6$  alkyl,  $-C_2-C_6$  alkenyl,  $-C_2-C_6$  alkynyl or  $-C_3-C_7$  cycloalkyl groups are optionally replaced with  $-(C=O)-$ ;

wherein  $R_Z$  at each occurrence is independently halogen,  $-OH$ ,  $-CN$ ,  $-CF_3$ ,  $C_1-C_6$  alkoxy,  $C_3-C_7$  cycloalkyl,  $C_3-C_7$  cycloalkoxy or  $-NR_{100}R_{101}$ ;

where  $R_{100}$  and  $R_{101}$  are independently H,  $C_1-C_6$  alkyl, phenyl,  $CO(C_1-C_6$  alkyl) or  $SO_2C_1-C_6$  alkyl;

wherein X is  $-C(=O)-$ ;

wherein  $R_1$  is  $C_1-C_{10}$  alkyl optionally substituted with 1 or 2 groups independently selected from halogen,  $-OH$ ,  $=O$ ,  $-CN$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-C_3-C_7$  cycloalkyl,  $-C_1-C_4$  alkoxy, amino, mono-dialkylamino, aryl, heteroaryl or heterocycloalkyl, wherein the aryl group is optionally substituted with 1 or 2  $R_{50}$  groups;

where  $R_{50}$  is halogen, OH, CN,  $-CO-(C_1-C_4$  alkyl),  $-NR_7R_8$ ,  $C_1-C_6$  alkyl,  $C_2-C_6$  alkenyl,  $C_2-C_6$  alkynyl,  $C_1-C_6$  alkoxy and  $C_3-C_8$  cycloalkyl;

where  $R_7$  and  $R_8$  are selected from H;  $-C_1-C_4$  alkyl optionally substituted with 1, 2, or 3 groups selected from  $-OH$ ,  $-NH_2$  and halogen;  $-C_3-C_6$  cycloalkyl;  $-(C_1-C_4$  alkyl)- $O-(C_1-C_4$  alkyl);  $-C_2-C_4$  alkenyl; and  $-C_2-C_4$  alkynyl; and

wherein  $R_C$  is selected from  
heteroaryl; or  
heterocycloalkyl;

where the heteroaryl group is optionally substituted with 1, 2, 3, or 4  $R_{200}$  groups; and  
 where the heterocycloalkyl group is optionally substituted with 1, 2, 3, or 4  $R_{210}$  groups.

11. (Previously Presented) A compound according to claim 10, wherein

Z is  $-C_1-C_6$  alkyl;

$R_1$  is  $C_1-C_{10}$  alkyl substituted with 1 phenyl group, where the phenyl group attached to the alkyl is optionally substituted with 1 or 2  $R_{50}$  groups, where each  $R_{50}$  is independently halogen, OH, CN, or  $C_1-C_6$  alkyl; and

$R_C$  is heteroaryl, where the heteroaryl group is optionally substituted with 1 or 2  $R_{200}$  groups.

12. (Currently Amended) A compound according to claim 1 which that is

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(4R)-6-isopropyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl]amino)propyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(4S)-6-isopropyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl]amino)propyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl)amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl)amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl)amino]-2-hydroxypropyl)acetamide;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2 $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-2-methylamino-acetamide;

2-Amino-N-[1-(3,5-difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2 $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[[6-ethyl-2-(methylsulfonyl)-1,2,3,4-tetrahydroisoquinolin-4-yl]amino]-2-hydroxypropyl)acetamide;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2 $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-3-methyl-butylamide;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2 $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-3-hydroxy-2,2-dimethyl-propionamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(2,2-dioxido-3,4-dihydro-1,2-benzoxathiin-4-yl)amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(6-iodo-3,4-dihydro-2H-chromen-4-yl)amino]propyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(4S)-6-iodo-3,4-dihydro-2H-chromen-4-yl]amino)propyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(4R)-6-iodo-3,4-dihydro-2H-chromen-4-yl]amino)propyl)acetamide;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2  $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-3-hydroxy-propionamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-2,2-dioxido-3,4-dihydro-1,2-benzoxathiin-4-yl)amino]-2-hydroxypropyl)acetamide;

~~N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-2,2-dioxido-3,4-dihydro-1,2-benzoxathiin-4-yl)amino]-2-hydroxypropyl)acetamide;~~

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[[4-(3-ethylphenyl)tetrahydro-2H-pyran-4-yl]amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(4S)-6-ethyl-3,4-dihydro-2H-chromen-4-yl]amino)-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(4R)-6-ethyl-3,4-dihydro-2H-chromen-4-yl]amino)-2-hydroxypropyl)acetamide;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2  $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-3-hydroxy-butyramide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-3,4-dihydro-1H-isothiochromen-4-yl)amino]-2-hydroxypropyl)acetamide;

~~N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[[1-(3-isobutylisoxazol-5-yl)cyclopropyl]amino]propyl)acetamide;~~

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2  $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-2-phenyl-acetamide;

[[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2  $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]carbamoyl]-methyl)-methyl-carbamic acid tert-butyl ester;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2  $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-2-methyl-2-methylamino-propionamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-2,2-dioxido-3,4-dihydro-1H-2,1-benzothiazin-4-yl)amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-2,2-dioxido-3,4-dihydro-1H-2,1-benzothiazin-4-yl)amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-3-methyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl)amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-3-methyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl)amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-1-methyl-1,2,3,4-tetrahydroquinolin-4-yl)amino]-2-hydroxypropyl)acetamide;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2  $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-2-(1H-imidazol-4-yl)-acetamide;

N-[1-(3,5-Difluoro-benzyl)-3-(6-ethyl-2,2-dioxo-2  $\lambda^6$ -isothiochroman-4-ylamino)-2-hydroxy-propyl]-propionamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[[1-(4-ethylpyridin-2-yl)cyclopropyl]amino]-2-hydroxypropyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[[[(4S)-6-(1H-pyrrol-3-yl)-3,4-dihydro-2H-chromen-4-yl]amino]propyl]acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(6-isopropyl-3,4-dihydro-2H-chromen-4-yl)amino]propyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[[1-(3-ethylphenyl)-2-(5-methyl-1,3-oxazol-2-yl)ethyl]amino]-2-hydroxypropyl)acetamide hydrochloride

N-[(1S,2R)-1-(3,5-difluorobenzyl)-3-(3,4-dihydro-2H-chromen-4-ylamino)-2-hydroxypropyl]acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[[[(4S)-6-isobutyl-3,4-dihydro-2H-chromen-4-yl]amino]propyl]acetamide;

N-[(1S,2R)-3-[[[(4S)-6-cyano-3,4-dihydro-2H-chromen-4-yl]amino]-1-(3,5-difluorobenzyl)-2-hydroxypropyl]acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[[[(4S)-6-neopentyl-3,4-dihydro-2H-chromen-4-yl]amino]propyl]acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(6-neopentyl-3,4-dihydro-2H-chromen-4-yl)amino]propyl)acetamide;

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-[[[(4R)-6-(2,2-dimethylpropyl)-3,4-dihydro-2H-

chromen-4-yl]amino)-2-hydroxypropyl)acetamide;

N-[(1S,2R)-3-[[4-(3-tert-butylphenyl)tetrahydro-2H-pyran-4-yl]amino]-1-(3,5-difluorobenzyl)-2-hydroxypropyl]acetamide;

N-[(1S,2R)-1-(3,5-difluorobenzyl)-3-[[6-(2,2-dimethylpropyl)-1,2,3,4-tetrahydroquinolin-4-yl]amino]-2-hydroxypropyl)acetamide;

N-[(1S,2R)-3-[(4S)-6-(2,2-dimethylpropyl)-3,4-dihydro-2H-chromen-4-yl]amino]-1-(3-fluorobenzyl)-2-hydroxypropyl]acetamide;

~~N-[(1S,2R)-1-(3,5-difluorobenzyl)-3-[[5-(2,2-dimethylpropyl)-2-(1H-imidazol-1-yl)benzyl]amino]-2-hydroxypropyl]acetamide;~~

N-[(1S,2R)-1-(3,5-difluorobenzyl)-3-[[6-(2,2-dimethylpropyl)-4-methyl-3,4-dihydro-2H-chromen-4-yl]amino]-2-hydroxypropyl)acetamide;

~~N-[(1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[[1-[3-(3-thienyl)phenyl]cyclohexyl]amino]propyl]acetamide;~~

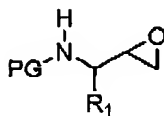
~~N-[(1S,2R)-1-(3,5-difluorobenzyl)-3-[[1-[4-(2,2-dimethylpropyl)pyridin-2-yl]cyclopropyl]amino]-2-hydroxypropyl]acetamide;~~

or a pharmaceutically acceptable salt thereof.

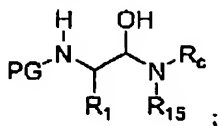
13. (Previously Presented) A method for preparing a compound or salt of

of claim 1, wherein Z, X, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>15</sub> and R<sub>c</sub> are as defined in claim 1, said method comprising

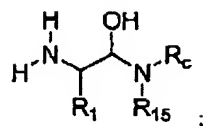
a) reacting an epoxide of the formula



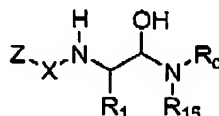
where PG is a nitrogen protecting group that is Cbz, Boc, or benzyl, with a compound of formula H(R<sub>15</sub>)N-R<sub>c</sub>, to form a compound of the formula:



b) deprotecting the amine to form a compound of the formula:



c) coupling the deprotected amine with a compound of formula Z-X-LG, where LG is a leaving group, to form a compound of the formula:



14. (Previously Presented) A method of treating a subject who has, Alzheimer's disease (AD); treating subjects with mild cognitive impairment (MCI); treating Down's syndrome; treating subjects who have Hereditary Cerebral Hemorrhage with Amyloidosis of the Dutch-Type; treating cerebral amyloid angiopathy and preventing its potential consequences; treating other degenerative dementias; treating dementia associated with Parkinson's disease, progressive supranuclear palsy, or cortical basal degeneration; treating diffuse Lewy body type AD; and frontotemporal dementias with parkinsonism (FTDP), the method comprising administering a therapeutically effective amount of a compound or salt of claim 1 to a person in need of such treatment.